

CLAIM AMENDMENTS

Please amend claim 1, 5, 16, and 17 as follows:

- 1) (currently amended) A process for delivering a polynucleotide into an extravascular parenchymal cell in a tissue of a mammal in vivo, comprising:
 - a) inserting the polynucleotide in a solution into the lumen of a mammalian blood vessel supplying or draining the tissue, in vivo wherein insertion of the solution increases the permeability of blood vessels in the tissue;
 - ~~b) increasing the permeability of the blood vessel;~~
 - e b) passing the polynucleotide through the blood vessel into the extravascular space;
 - d c) delivering the polynucleotide into the ~~mammalian~~ extravascular parenchymal cell; and,
 - e d) expressing the polynucleotide.
- 2) (currently amended) The process of claim 1 wherein increasing the permeability of the blood vessels in the tissue consists of increasing pressure ~~against~~ within the blood vessels walls in the tissue.
- 3) (currently amended) The process of claim 2 wherein increasing the pressure consists of increasing a volume of fluid within the blood vessels within the tissue.
- 4) (original) The process of claim 3 wherein increasing the volume consists of inserting a solution containing the polynucleotide into the blood vessel.
- 13) 5) (currently amended) The process of claim 4 wherein increased pressure is controlled by altering the rate of insertion of the ~~volume of the solution in relation to the time period of insertion into the vessel.~~
- 6) (original) The process of claim 5 wherein the blood vessel consists of a tail vein.
- 7) (original) The process of claim 1 wherein the cell is selected from the group consisting of a liver cell, spleen cell, heart cell, kidney cell, prostate cell, skin cell, testis cell, skeletal muscle cell, fat cell, bladder cell, brain cell, pancreas cell, thymus cell, and lung cell.
- 8) (original) A process for delivering a polynucleotide complexed with a compound into an extravascular parenchymal cell of a mammal, comprising:
 - a) making a polynucleotide-compound complex wherein the zeta potential of the complex is less negative than the polynucleotide alone;
 - b) adding another compound to the complex to increase zeta potential negativity of the complex from the previous step;
 - c) inserting the complex into a mammalian blood vessel;
 - d) increasing the permeability of the blood vessel; wherein the polynucleotide passes through the blood vessel wall;
 - e) delivering the polynucleotide into the mammalian extravascular parenchymal cell; and,
 - f) expressing the polynucleotide.
- 9) (original) The process of claim 8 wherein increasing the permeability of the blood vessel consists of increasing pressure against blood vessel walls.

- 10) (original) The process of claim 9 wherein increasing the pressure consists of increasing a volume of fluid within the blood vessel.
- 11) (original) The process of claim 10 wherein increasing the volume consists of inserting a solution containing the polynucleotide into the blood vessel.
- 12) (original) The process of claim 11 wherein a specific volume of the solution is inserted within a specific time period.
- 13) (original) The process of claim 12 wherein increased pressure is controlled by altering the volume of the solution in relation to the time period of insertion.
- 14) (original) The process of claim 13 wherein the blood vessel consists of a tail vein.
- 15) (original) The process of claim 8 wherein the cell is selected from the group consisting of a liver cell, spleen cell, heart cell, kidney cell, prostate cell, skin cell, testis cell, skeletal muscle cell, fat cell, bladder cell, brain cell, pancreas cell, thymus cell, and lung cell.
- 16) (currently amended) The process of claims 1 and or 8 wherein the polynucleotide is inserted in at least a 1 milliliter solution.
- 17) (currently amended) The process of claims 1 and or 8 wherein the extravascular parenchymal cell consists of ~~the hepatocytes~~ an hepatocyte.
- 18) (original) The process of claim 17 wherein intrahepatic parenchymal pressure is at least 10 mm mercury.
- 19) (withdrawn)
- 20) (withdrawn)
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